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SERIAL NUMBER	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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07/827,906 01/30/92 BARTON

1132890199  
EXAMINER

CHERESKIN, C

ART UNIT PAPER NUMBER

22

18M2/0321

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1803  
DATE MAILED:

03/21/95

This is a communication from the examiner in charge of your application.  
COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined ☐ Responsive to communication filed on \_\_\_\_\_ ☐ This action is made final.

A shortened statutory period for response to this action is set to expire three (3) month(s), \_\_\_\_\_ days from the date of this letter.  
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- ☒ Notice of References Cited by Examiner, PTO-892. 1p
- ☐ Notice of Draftsman's Patent Drawing Review, PTO-948.
- ☐ Notice of Art Cited by Applicant, PTO-1449.
- ☐ Notice of Informal Patent Application, PTO-152.
- ☐ Information on How to Effect Drawing Changes, PTO-1474.
- ☐ \_\_\_\_\_

Part II SUMMARY OF ACTION

1. ☒ Claims 1-4, 7 and 15-19 are pending in the application.

Of the above, claims \_\_\_\_\_ are withdrawn from consideration.

2. ☒ Claims 5-6 and 8-14 have been cancelled.

3. ☐ Claims \_\_\_\_\_ are allowed.

4. ☒ Claims 1-4, 7 and 15-19 are rejected.

5. ☐ Claims \_\_\_\_\_ are objected to.

6. ☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

7. ☒ This application has been filed with Informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.

8. ☐ Formal drawings are required in response to this Office action.

9. ☐ The corrected or substitute drawings have been received on \_\_\_\_\_. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).

10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on \_\_\_\_\_, has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).

11. ☐ The proposed drawing correction, filed \_\_\_\_\_, has been ☐ approved; ☐ disapproved (see explanation).

12. ☐ Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☐ been filed in parent application, serial no. \_\_\_\_\_; filed on \_\_\_\_\_.

13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.

14. ☐ Other

390

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EXAMINER'S ACTION

Serial Number: 07/827,906  
Art Unit: 1803

2

The Group and/or Art Unit location of your application in the PTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Group Art Unit 1803.

5           The earlier indication of allowable subject matter in Paper No. 21 is withdrawn in view of the newly available prior art, applied below.

10           The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

15           A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20           Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

25           This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103, the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 C.F.R. § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of potential 35 U.S.C. § 102(f) or (g) prior art under 35 U.S.C. § 103.

391

42

Claims 1-4, 7, and 15-19 are rejected under 35 U.S.C. § 103 as being unpatentable over Adang et al taken with either of Barton et al or Vaeck et al.

Adang et al teach a method to improve expression of a B.t. protein by analyzing the codon usage in native plant genes and synthesizing chimeric B.t. genes, using codons preferentially utilized by plants (see claims, and cols. 10-12). Re claims 2-4, techniques for synthesizing the synthetic gene appear to be the same or similar to those described by Applicants (see fig. 2 and 3, and example 2, for example). Re claims 15-19, and expression in a plant, see examples 4 and 5, for example.

Adang et al differ from the claimed invention primarily in that the B.t. toxin exemplified was not toxic to Manduca sexta and was not in excess of 72 kD in size. However, Adang et al teach modification of B.t. genes in general as indicated by col. 8, lines 24-65, for example. Furthermore, B.t. genes with toxicity to Manduca sexta and native size in excess of 72 kD were well known as indicated by either of Barton et al or Vaeck et al.

Consequently, the modification of the teaching of Adang et al with application to a different B.t. toxin gene was well within the ordinary skill in the art at the time the claimed invention was made as adequately demonstrated by the secondary references. Thus, the claimed invention as a whole was clearly prima facie obvious over the references, in the absence of sufficient, clear, and convincing evidence to the contrary.

No claim is allowed.

392

OR

Serial Number: 07/827,906  
Art Unit: 1803

4

An inquiry concerning this communication or earlier communications from the Examiner should be directed to Che Swyden Chereskin, Ph.D., at telephone number (703) 308-1180. The Examiner can normally be reached on Monday - Friday from 8:30 AM to 5:00 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Doug Robinson, can be reached on (703) 308-2897. Inquiries of a general nature should be directed to the Group 1800 secretary at (703) 308-0196.

Papers related to this application may be submitted to Group 1800 by facsimile transmission. Papers should be faxed to Group 1800 via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The CM1 Fax Center number is (703) 305-3014.

CHE S. CHERESKIN  
PRIMARY EXAMINER  
GROUP 1800

*Che Swyden  
Chereskin*

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